

MATERIAL SAFETY DATA SHEET

DPM 3214-1

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME ULANO CORPORATION		TELEPHONE NO. 718-643-1770
ADDRESS (Number, Street, City, State, and ZIP Code) 255 BUTLER STREET, BROOKLYN, N.Y. 11217		
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS HI-FI DEVELOPER PT. A	
CHEMICAL FAMILY	FORMULA	

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS	NOT APPLICABLE		NOT APPLICABLE		
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
NOT APPLICABLE					
<i>Citric Acid</i>				<i>100</i>	

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N.A.	SPECIFIC GRAVITY (H ₂ O=1)	1.542
VAPOR PRESSURE (mm Hg.)	N.A.	PERCENT VOLATILE BY VOLUME (%)	N.A.
VAPOR DENSITY (AIR=1)	N.A.	EVAPORATION RATE (____=1)	N.A.
SOLUBILITY IN WATER % by wgt.	60	MELTING POINT	153°C.
APPEARANCE AND ODOR WHITE ODORLESS GRANULAR, FINE GRANULAR OR POWDER			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	min	opt.
IGNITION POINT 1000-1020°C.	g/cu ft	8	65
EXTINGUISHING MEDIA			
SPECIAL FIRE FIGHTING PROCEDURES			
UNUSUAL FIRE AND EXPLOSION HAZARDS			
WEAK (BUR. OF MINES RELATIVE EXPLOSION HAZARD RATING.)			

SECTION V - HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE	NOT ESTABLISHED
EFFECTS OF OVEREXPOSURE	AS MILD ORGANIC ACIDS, MAY CAUSE SYMPTOMS OF RESPIRATORY IRRITATION.
EMERGENCY AND FIRST AID PROCEDURES	FLUSH SKIN CONTACT WITH WATER AND FLUSH EYE CONTACT IMMEDIATELY WITH PHYSIOLOGICAL SALINE OR WATER. GET MEDICAL CARE FOR EYES

SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID N.A.
	STABLE	X	
INCOMPATIBILITY (Materials to avoid) USUAL INCOMPATIBILITIES OF ORGANIC ACIDS			
HAZARDOUS DECOMPOSITION PRODUCTS NOT ESTABLISHED			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	N.A.

SECTION VII - SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	FLUSH WITH WATER OR SWEEP AND SHOVEL
WASTE DISPOSAL METHOD	CAN BE FLUSHED AWAY WITH WATER OR DISPOSED IN NORMAL SOLIDS DISPOSAL SYSTEMS

SECTION VIII - SPECIAL PROTECTION INFORMATION		
RESPIRATORY PROTECTION (Specify type) APPROVED NUISANCE MASK		
VENTILATION	LOCAL EXHAUST SATISFACTORY	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES NONE NORMALLY REQUIRED		EYE PROTECTION SAFETY SPECTACLES
OTHER PROTECTIVE EQUIPMENT NONE		

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	N.A.
OTHER PRECAUTIONS	NONE

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

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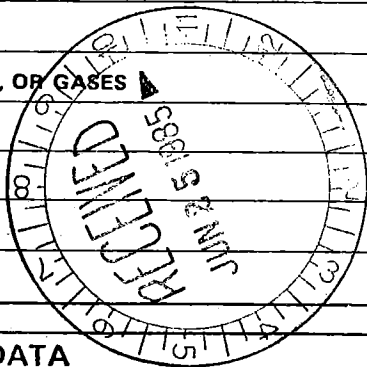
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CHEMICAL FAMILY	FORMULA	

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS		NA	BASE METAL		NA
CATALYST		NA	ALLOYS		NA
VEHICLE		NA	METALLIC COATINGS		NA
SOLVENTS		NA	FILLER METAL PLUS COATING OR CORE FLUX		NA
ADDITIVES		NA	OTHERS		NA
OTHERS		NA			NA
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
NOT APPLICABLE					
<i>Sodium perborate tetrahydrate</i>				<i>100</i>	



SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	DECOMPOSES	SPECIFIC GRAVITY (H ₂ O=1)	BULK DENSITY	0.69-0.87
VAPOR PRESSURE (mm Hg.)	NA	PERCENT, VOLATILE BY VOLUME (%)		10
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (_____=1)		NA
SOLUBILITY IN WATER	MODERATE			
APPEARANCE AND ODOR WHITE CRYSTALLINE SOLID WITH NO ODOR				

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) NA (NON-FLAMMABLE)	FLAMMABLE LIMITS NA	Lel	Uel
EXTINGUISHING MEDIA USE WATER TO FIGHT FIRES IN WHICH THIS MATERIAL IS INVOLVED.			
SPECIAL FIRE FIGHTING PROCEDURES NA			
UNUSUAL FIRE AND EXPLOSION HAZARDS NA			

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

UNKNOWN

EFFECTS OF OVEREXPOSURE

DRYING AND MINOR IRRITATION ON PROLONGED SKIN CONTACT! MORE IRRITATING TO EYES AND MUCOUS MEMBRANE

EMERGENCY AND FIRST AID PROCEDURES

WASH PROMPTLY IN CASE OF ACCIDENTAL CONTACT WITH EYES. CALL PHYSICIAN.

SKIN - WASH WITH WATER.

INHALATION - REMOVE FROM EXPOSURE.

SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

STABLE

X

INCOMPATIBILITY (Materials to avoid)

HEAVY METALS, ORGANIC MATERIALS, WATER

HAZARDOUS DECOMPOSITION PRODUCTS

OXYGEN AND HYDROGEN PEROXIDE.

HAZARDOUS
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

X

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

WASH AWAY WITH WATER.

WASTE DISPOSAL METHOD

DILUTE WITH LARGE QUANTITIES OF WATER AND FLUSH INTO SEWER.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

USE RESPIRATOR IF DUSTY CONDITIONS EXIST

VENTILATION

LOCAL EXHAUST

SPECIAL

MAINTAIN ADEQUATE VENTILATION

NA

MECHANICAL (General)

OTHER

UNKNOWN

NA

PROTECTIVE GLOVES GENERAL PURPOSE

EYE PROTECTION

NON-ABSORBENT FOR HANDLING LARGE QUANTITIES GOGGLES FOR HANDLING LARGE QUANTITIES

OTHER PROTECTIVE EQUIPMENT

NA

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

STORE IN COOL, DRY AREA. AVOID HIGH HUMIDITIES AND TEMPERATURE ABOVE 90°F.
TO PREVENT LOSS OF OXYGEN AND PREVENT CAKING.

OTHER PRECAUTIONS

NA